

# Overview of the Revised Comm 10

For  
Owners & Operators



*September 2009*

By  
Sheldon Schall, Storage Tank Regulation Section Chief  
Robert Bertram, District 2 Retail Petroleum Inspection Supervisor

# Overview of the Workshop

- Comm 10 revisions - Feb 1, 2009 and Aug 1, 2009
- Comm 10 UST and AST operations
- Code requirements that we feel are most significant
- Operational and administrative spectrum of tank operators (retail)
- Allow opportunity for questions & discussion
- Technical “how-to” of installation will not be covered

# Increased Emphasis on Release Prevention

- ❖ Leaks and releases continue to occur
- ❖ Still major voids in engineered controls
- ❖ Most releases could have been prevented with better O/O oversight/management
- ❖ Equipment issues:
  - Installation design
  - Move out of tolerance
  - Misperceptions of functional life
  - Climatic influences
  - Tank product residue impacts sensitivity
  - Human error
  - “Out of sight - Out of mind”



# Adopted National Standards

- PEI 500-Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment
- PEI 900-Recommended Practices for the Inspection and Maintenance of UST Systems
- DOE-Handbook For Handling, Storing and Dispensing E85
- DOE-Biodiesel Handling and Use Guidelines

Adopted for the purpose of:

- Reference to correspond with operator training requirement
- Developed by industry consensus organization
- Provide consistency of inspections and expectations within the operator and regulatory sector



# Federal Energy Bill Operator Training

	Class A Operator	Class B Operator	Class C Operator
Who fits this class of operator?	The individual who generally focuses on the statutory and regulatory requirements related to operating and maintaining the underground storage tank system	The individual who is generally responsible for field implementation of applicable underground storage tank regulatory requirements and implements day-to-day aspects of operating, maintaining, and recordkeeping for USTs at one or more facilities	The individual who is generally the first line of response to events indicating emergency conditions or responding to alarms
What is the objective of the training requirements?	Ensure broad knowledge of regulatory requirements	Ensure in-depth knowledge of implementing regulatory requirements	Ensure knowledge of actions to take in the event of a leak or other emergency

## Anticipated Class A/B choices:

- Third party working under contract
- UST service person
- Corporate regional compliance person
- Employee of the facility
- Owner/operator

## Shift manager

# Responsibilities/Training of Class A

## Class A responsible for :

- Managing resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.
- Ensuring that appropriate individuals do all of the following:
  1. Properly operate and maintain the underground storage tank system.
  2. Maintain appropriate records.
  3. Receive training to operate and maintain the underground storage tank system and keep records.
  4. Properly respond to emergencies or alarms relating to spills, leaks or releases from the underground storage tank system.
  5. Make financial responsibility documents available to the authorized agent or the department as required.

## Class A training:

- Basic underground storage tank system requirements regarding all of the following:
  - (a) Spill prevention.
  - (b) Overfill prevention.
  - (c) Leak and release detection.
  - (d) Corrosion protection.
  - (e) Emergency response.
  - (f) Product compatibility.
- Financial responsibility documentation requirements.
- Notification requirements.
- Requirements for reporting obvious and suspected releases.
- Requirements for permanently closing a tank system and for placing a tank system temporarily out of service.
- Operator training requirements.

# Responsibilities/Training of Class B

## Class B responsible for:

- a) Requirements for leak or release detection methods, recordkeeping and reporting are met.
- (b) Requirements for leak or release prevention equipment, recordkeeping and reporting are met.
- (c) All relevant equipment complies with performance standards.
- (d) Appropriate individuals are trained to properly respond to emergencies or alarms relating to spills, leaks or releases from the underground storage tank system.
- (e) All Class C operators are provided with written instructions that include all of the following:
  - 1. Emergency response procedures, including all of the following:
    - a. Procedures for overfill protection during delivery of regulated substances.
    - b. Operation of emergency shut-off systems.
    - c. Appropriate responses to all alarms.
    - d. Reporting of leaks, spills and releases.
    - e. Any site-specific emergency procedures.
  - 2. The name and other information needed for contacting appropriate parties if a leak, spill, release or alarm occurs.
- (f)
  - 1. A Class C operator is present during all operating hours of the underground storage tank system, except as provided in subd. 2.
  - 2.
    - a. For fueling facilities which are attended as specified in s. Comm 10.605 (5) (a) and which include hours of operation when no attendant is on duty, a sign shall be posted in a conspicuous place, stating the emergency shut-off procedures and the name, address and telephone number of the Class B operator, along with the name and telephone number of the local emergency responders, including 911 personnel.

## Class B training:

- Operation and maintenance requirements of this chapter which apply to underground storage tank systems and which address each of the following:
  - a. Spill prevention.
  - b. Overfill prevention.
  - c. Leak and release detection.
  - d. Corrosion protection.
  - e. Emergency response.
  - f. Product compatibility.
- 5. Reporting and recordkeeping requirements.
- 6. Class C operator training requirements

# Responsibilities/Training of Class C

## Class C responsibilities:

- ❖ Initially responding to alarms, spills, leaks or releases.
- ❖ Notifying the Class B or Class A operator and appropriate emergency responders, including 911 personnel, when necessary.
- ❖ Controlling or monitoring the dispensing or sale of regulated substances.

## Class C training:

- ❖ Emergencies, including situations which pose an immediate danger or threat to the public or to the environment and which require immediate action.
- ❖ Alarms caused by spills, leaks or releases from an underground storage tank system.
- ❖ Emergency response procedures, including all of the following:
- ❖ Procedures for overfill protection during delivery of regulated substances.
- ❖ Operation of emergency shut-off systems.
- ❖ Appropriate responses to all alarms.
- ❖ Reporting of leaks, spills and releases.
- ❖ Any site-specific emergency procedures.

# Federal Energy Bill Operator Training

	Class A Operator	Class B Operator	Class C Operator
Who fits this class of operator?	The individual who generally focuses on the statutory and regulatory requirements related to operating and maintaining the underground storage tank system	The individual who is generally responsible for field implementation of applicable underground storage tank regulatory requirements and implements day-to-day aspects of operating, maintaining, and recordkeeping for USTs at one or more facilities	The individual who is generally the first line of response to events indicating emergency conditions or responding to alarms
What is the objective of the training requirements?	Ensure broad knowledge of regulatory requirements	Ensure in-depth knowledge of implementing regulatory requirements	Ensure knowledge of actions to take in the event of a leak or other emergency

*Must Pass  
a  
Commerce Approved  
Test*

## Approved Tests:

- Internet
- Class room

August 8, 2012

## Shift manager

*Must Pass a Test  
by an approved  
Class A or B  
Operator*

# Enforcement

- If no A, B or C person designated by Jan 1, 2012 or Aug 8, 2012 (small business) facility will not be allowed to operate.
- Retraining if not maintaining “significant compliance.”
  - Substantial compliance is not a specific number or percentage of compliance.
  - Retraining under this section shall be in accordance with a directive by the department. - *The department can select the retraining method or organization*



# Operator Training Web Site

[http://commerce.wi.gov/ER/ER-BST-FedRegUST\\_OperatorTraining.html](http://commerce.wi.gov/ER/ER-BST-FedRegUST_OperatorTraining.html)

The screenshot shows a web browser window titled "Wisconsin Department of Commerce: - Windows Internet Explorer". The address bar displays the URL [http://commerce.wi.gov/ER/ER-BST-FedRegUST\\_OperatorTraining.html](http://commerce.wi.gov/ER/ER-BST-FedRegUST_OperatorTraining.html). The page features the Wisconsin Department of Commerce logo and navigation links. The main content area is titled "Operator Training Requirements for Operators of Federally Regulated Underground Tanks" and includes sections for "Training and Testing for Owners and Operators of Federally Regulated Underground Storage Tanks", "FEDERAL ENERGY POLICY ACT OF 2005", "ACCEPTABLE TRAINING AND CERTIFICATION PROCESSES", "DEADLINE", and "RESPONSIBILITIES OF OPERATORS". The left sidebar contains links for "PETROLEUM AND TANKS" and "COMMERCE RESOURCES". The bottom of the page shows the Windows taskbar with various open applications.

Wisconsin Department of Commerce: - Windows Internet Explorer

http://commerce.wi.gov/ER/ER-BST-FedRegUST\_OperatorTraining.html

File Edit View Favorites Tools Help

Wisconsin Department of Commerce: - Windows Internet Explorer

Search: Commerce search text (alt+t) Search

Change text size  
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**PETROLEUM AND TANKS**

- Storage Tank Regulations
- Storage Tank Database
- PECFA
- Licenses and Permits
- Fire Prevention
- Brownfields Initiative
- Contacts

**COMMERCE RESOURCES**

- Home
- About Commerce
- Business Development
- Community Development
- Export Development
- Housing Services
- Petroleum and Tanks
- Safety and Buildings

Wisconsin Governor Jim Doyle

Employment Opportunities

A W I . G O V  
W E B S I T E

Home > Petroleum and Tanks

## Operator Training Requirements for Operators of Federally Regulated Underground Tanks

### Training and Testing for Owners and Operators of Federally Regulated Underground Storage Tanks

#### FEDERAL ENERGY POLICY ACT OF 2005

States must develop training requirements for individuals who operate and maintain federally-regulated underground storage tank systems. Operators are owners or owners' representatives (Class A), the actual persons charged with supervising day-to-day operations (Class B) and on-site employees (Class C).

The Energy Policy Act of 2005 was codified in [Comm 10 Subchapter VIII](#). The following information pertains to requirements under the Comm 10 Flammable, Combustible and Hazardous Liquids Code. Regulatory oversight of the operator training requirement will be via annual inspections and the Permit-To-Operate process.

#### ACCEPTABLE TRAINING AND CERTIFICATION PROCESSES

Operator training includes evaluation of an operator's knowledge of applicable requirements. Methods for meeting the requirements of Class A and B include having either of the following: (1) certificate issued by the International Code Council® showing an individual has passed the Wisconsin underground storage tank operator examination; or (2) written proof of successful completion of an equivalent, alternate operator training and testing program that has received prior approval from the Department of Commerce. Alternate programs will include an evaluation of operator knowledge through testing, practical demonstration or other tools that the Department determines are acceptable.

Class C operators must obtain training and a certificate from the accredited Class A or Class B facility operator where the Class C operator is employed indicating the Class C operator has successfully completed training for the facility.

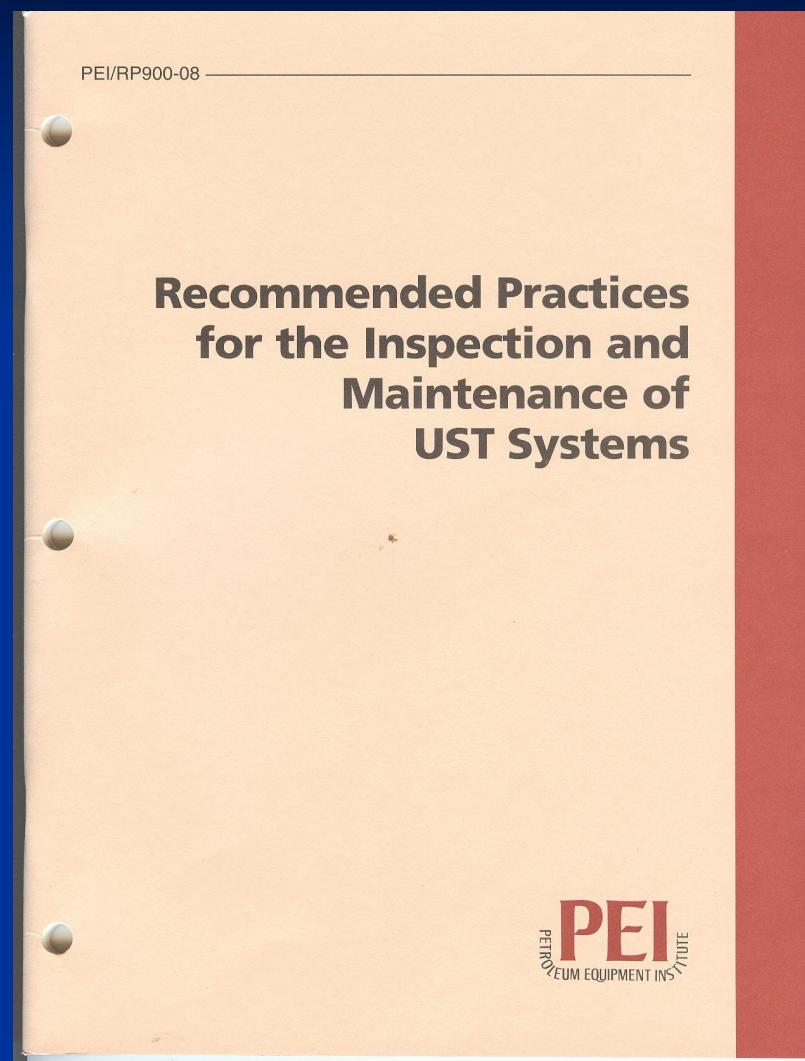
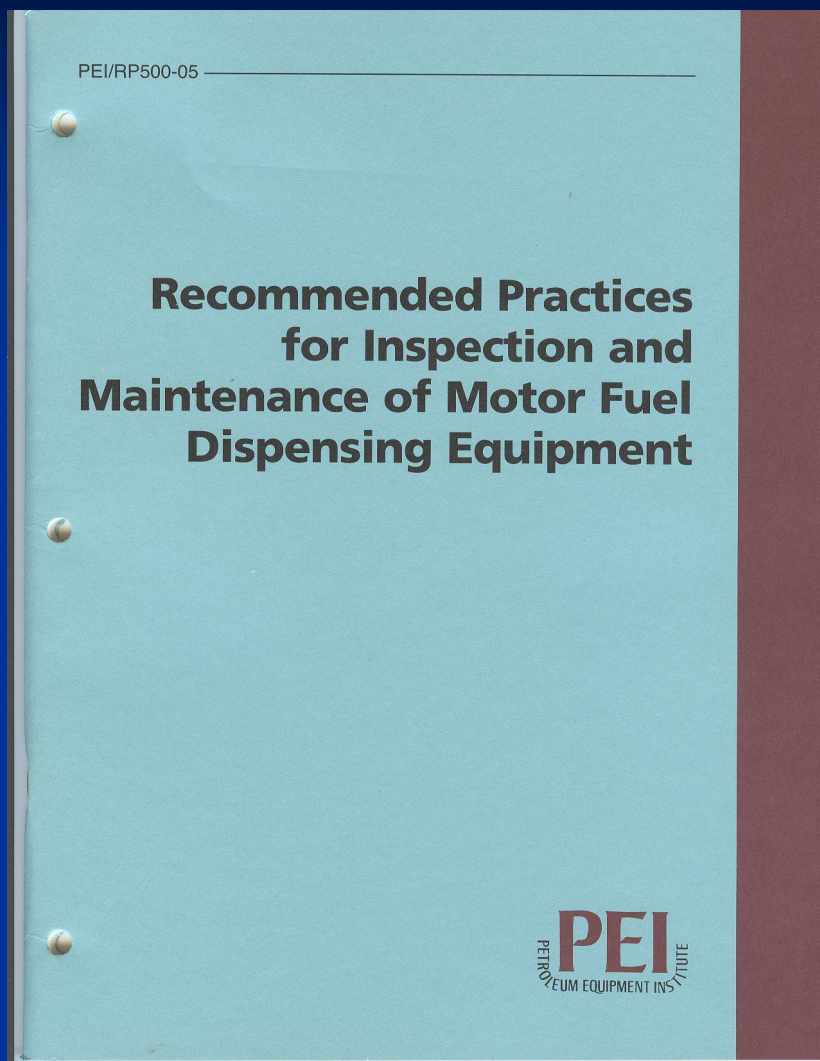
#### DEADLINE

Each new or existing facility with an underground storage tank system must have a Class A, a Class B and a Class C operator designated by **January 1, 2012**. For an entity that demonstrates it meets the definition of a small business in section 227.114 (1), Stats., the date for having accredited operators is **August 8, 2012**.

#### RESPONSIBILITIES OF OPERATORS

##### CLASS A OPERATORS

# Maintenance



[http://pei.org/index.aspx?p=recommended\\_practice](http://pei.org/index.aspx?p=recommended_practice)



# System Maintenance

## Comm 10.230(10)

SYSTEM MAINTENANCE. (a) All system equipment and components shall be **maintained to function to the manufacturer's original specifications** and shall be maintained to be leak-free.

(b) 1. **At least monthly**, except as provided in subd. 2, sumps and secondary containment systems for tanks, piping and dispensers shall be inspected, and any liquids and debris contained then shall be removed.

2. Sumps with a **non-discriminating electronic sensor** that detects liquid in the sump **shall be inspected at least semiannually** unless more frequent inspection is required by RP500 or RP900.

(c) Deficiencies in product lines or structural or transition components that allow for **liquid leaks or water intrusion shall be repaired or corrected**.

(d) Leak detection, fill and overflow prevention **equipment shall be maintained in a functional condition**.

(e) Fire and leak prevention and detection **equipment** installed, but not required by the department's rules, **shall be maintained functional or be removed**.

**Note:** Section Comm 10.115 (3) (a) 7. allows the authorized agent or the Department or fire department to shut down the tank system until any breach in the tank system is repaired or otherwise corrected.

# What Records Must You Keep

## ❖ Federal EPA:

- You will have to keep records that can be provided to an inspector during an on-site visit that prove your facility meets certain requirements. These records must be kept long enough to show your facility's recent compliance status in four major areas:
- #1 You will have to keep records of **leak detection** performance and maintenance:
  - ✓ The last year's *monitoring results*, and the most *recent tightness test*.
  - ✓ Copies of performance claims provided by leak detection manufacturers.
  - ✓ Records of *recent maintenance, repair, and calibration* of on-site leak detection equipment.
- #2 You will have to keep records showing the required inspections and tests of your **corrosion protection** system.
- #3 You must keep records showing that a **repaired or upgraded** UST system was properly repaired or upgraded.
- #4 For at least 3 years after **closing an UST**, you must keep records of the site assessment results required for permanent closure. (These results show what impact your UST has had on the surrounding area.)
- #5 You must keep records that document your **financial responsibility**.

# What Records Must You Keep (Cont'd)

## Commerce: Comm 10.500(9)(c)

*Maintenance of records.* Records shall be maintained for the following periods from the date of the most recent test, inspection or upgrade:

### Leak Detection:

1. Monthly leak detection monitoring - 1 year.
2. Annual precision tightness testing - 1 year.
3. Periodic precision tightness testing in association with inventory control - until the next test is conducted.
4. Annual performance verification of leak detection equipment and flow restrictor - 2 years.
5. The owner's manual provided by the leak detection equipment manufacturer - until the leak detection system is replaced or no longer used.
6. Leak detection alarm investigation - 2 years.
7. Product inventory verification in accordance with s. Comm 10.503, and inventory control in accordance with s. Comm 10.515 (2) - 10 years.



# What Records Must You Keep (Cont'd)

## Commerce: 10.500(9)(c)

### Corrosion Protection:

1. Impressed current corrosion protection system, 60-day inspection - the previous 3 inspections.
2. Corrosion protection system, annual test - the previous 3 tests.
3. Internal inspection associated with underground tank lining - 10 years.



# What Records Must You Keep (Cont'd)

## Commerce: 10.500(9)(c)

### Miscellaneous:

1. Results of functional testing of impact and emergency shut-off valves and electrical continuity testing for dispensers - 2 years.
2. Any tank or pipe system modification or repair - the life of the system.
3. Inspection records - 3 years or the interval between required inspections, whichever is longer.
4. Tank-system site assessments and other environmental assessments, such as assessments for property transactions - 3 years after completion of any permanent closure, upgrade, repair or change in service. These records shall be maintained at one of the following locations:
  - a. With the owner or operator who took the UST system out of service.
  - b. With the current operator of the UST system site.
  - c. With the department if records cannot be maintained at the closed facility.
5. One set of stamped, approved plans and specifications and a copy of the approval letter - the life of the system.



## What Records Must You Keep (Cont'd)

### Commerce: 10.500(9)(c)

**Line Leak Detectors (LLD):** ☐ Check this

**Complete the following checklist:**

<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For equipment start-up or annual equipment ( <i>Check all that apply</i> ) Simulated leak rate:
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Were all LLDs confirmed operational and a
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Was the testing apparatus properly calibrated
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For mechanical LLDs, does the LLD restrict (Leak Rate = _____ gph)
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For electronic LLDs, does the turbine autorotate (Leak Rate = _____ gph)
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For electronic LLDs, does the turbine autorotate or disconnected?
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For electronic LLDs, does the turbine have malfunctions or fails a test?
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For electronic LLDs, have all accessible wiring
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Were all items on the equipment manufacturer's

**\* In the Section below, describe how and when these deficiencies occurred.**

**Certification** - I certify that the equipment identified in the attached Plot Plan was used in accordance with the manufacturers' guidelines. Attached to this Verification Form is a statement from the user of the equipment to verify that this information is correct and a Plot Plan showing the equipment was used in accordance with the manufacturers' guidelines. If the equipment is not capable of generating such reports, I have also attached a statement from the user of the equipment to verify that this information is correct.

Technician Name (print): \_\_\_\_\_  
Date of Testing/Service: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Provide Plot Plan/Facility Layout**

## Service technicians

**Complete the following checklist:**

<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Is the audible alarm(s) operational and functional?
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Is the visual alarm(s) operational and functional?
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Were all sensors visually inspected, functionally
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Are all sensors installed at lowest point of second with their proper operation?
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	If alarms are relayed to a remote monitoring operational?
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For pressurized piping systems, does the turbine monitoring system detects a leak, fails to operate initiate positive shut-down? ( <i>Check all that apply</i> ) Sensors. Did you confirm positive shut-down due to leaks?
<input type="checkbox"/> Yes	<input type="checkbox"/> No* <input type="checkbox"/> N/A	For tank systems that utilize the monitoring system, mechanical overflow prevention valve is installed, fill point(s) and operating properly? If so, _____ %
<input type="checkbox"/> Yes*	<input type="checkbox"/> No	Was any monitoring equipment replaced? If replaced and list the manufacturer name and model.
<input type="checkbox"/> Yes*	<input type="checkbox"/> No	Was liquid found inside any secondary containment Product; Water. If yes, describe causes in _____
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Was monitoring system set-up reviewed to ensure
<input type="checkbox"/> Yes	<input type="checkbox"/> No*	Is all monitoring equipment operational per manufacturer

\* In Section below, describe how and when these deficiencies were corrected.  
Comments

**In-Tank Gauging / SIR Equipment:** ☐ Check this box if  
☐ Check this box if

This section must be completed if in-tank gauging equipment

**Complete the following checklist:**

Checklist		Tag	Category
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Has all input wiring been inspected for proper ent
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Were all tank gauging probes visually inspected fi
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Was accuracy of system product level readings tes
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Was accuracy of system water level readings teste
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Were all probes reinstalled properly and verified
<input type="checkbox"/> Yes	<input type="checkbox"/> No*		Were all items on the equipment manufacturer's m

**\* In the Section below, describe how and when these deficiencies were corrected.**

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Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

OWNER INFORMATION		PROJECT INFORMATION		CONTRACTOR INFORMATION	
Customer ID#: _____ Name _____		Site ID#: _____ Facility ID#: _____ Facility Name _____		Customer ID#: _____ Contractor Name _____	
Company Name _____		Site Address _____		Number and Street _____	
Number and Street _____		<input type="checkbox"/> City <input type="checkbox"/> Village <input type="checkbox"/> Town of: _____		City, State, Zip Code _____	
City, State, Zip Code _____		County _____		Contact Person _____	
Telephone Number ( ) _____ Fax Number ( ) _____		Fire Dept. Providing Fire Coverage _____ FDID# _____		Telephone Number ( ) _____ Fax Number ( ) _____	

This form must be used to document testing and servicing of monitoring equipment. A separate verification or report must be prepared for each monitoring system control panel by the technician who performs the work. A copy of this form must be provided to the tank system owner/operator. The owner/operator must retain these records in accordance with s.Comm 10.625.

Inventory of Equipment Tested/Verified

Check the appropriate boxes to indicate specific equipment inspected/serviced:

<p><b>Tank Reg Obj. #</b> _____</p> <p><input type="checkbox"/> In-Tank Gauging Probe. Model: _____</p> <p><input type="checkbox"/> Annular Space or Vault Sensor. Model: _____</p> <p><input type="checkbox"/> Piping Sump / Trench Sensor(s). Model: _____</p> <p><input type="checkbox"/> Mechanical Line Leak Detector. Model: _____</p> <p><input type="checkbox"/> Electronic Line Leak Detector. Model: _____</p> <p><input type="checkbox"/> Tank Overfill / High-Level Sensor. Model: _____</p> <p><input type="checkbox"/> Other (specify equipment type / model in comment section below). _____</p> <p><input type="checkbox"/> Spill bucket is functional <input type="checkbox"/> Spill bucket replaced</p>	<p><b>Tank Reg Obj. #</b> _____</p> <p><input type="checkbox"/> In-Tank Gauging Probe. Model: _____</p> <p><input type="checkbox"/> Annular Space or Vault Sensor. Model: _____</p> <p><input type="checkbox"/> Piping Sump / Trench Sensor(s). Model: _____</p> <p><input type="checkbox"/> Mechanical Line Leak Detector. Model: _____</p> <p><input type="checkbox"/> Electronic Line Leak Detector. Model: _____</p> <p><input type="checkbox"/> Tank Overfill / High-Level Sensor. Model: _____</p> <p><input type="checkbox"/> Other (specify equipment type / model in comment section below). _____</p> <p><input type="checkbox"/> Spill bucket is functional <input type="checkbox"/> Spill bucket replaced</p>
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<p><b>Dispenser ID:</b> _____</p> <p><input type="checkbox"/> Dispenser Containment Sensor(s). Model: _____</p> <p><input type="checkbox"/> Shear Valve(s) properly anchored &amp; operational</p> <p><input type="checkbox"/> Dispenser Containment</p>	<p><b>Dispenser ID:</b> _____</p> <p><input type="checkbox"/> Dispenser Containment Sensor(s). Model: _____</p> <p><input type="checkbox"/> Shear Valve(s) properly anchored &amp; operational</p> <p><input type="checkbox"/> Dispenser Containment</p>
<p><b>Dispenser ID:</b> _____</p> <p><input type="checkbox"/> Dispenser Containment Sensor(s). Model: _____</p> <p><input type="checkbox"/> Shear Valve(s) properly anchored &amp; operational</p> <p><input type="checkbox"/> Dispenser Containment</p>	<p><b>Dispenser ID:</b> _____</p> <p><input type="checkbox"/> Dispenser Containment Sensor(s). Model: _____</p> <p><input type="checkbox"/> Shear Valve(s) properly anchored &amp; operational</p> <p><input type="checkbox"/> Dispenser Containment</p>
<p>*If the facility contains more tanks or dispensers, copy this form. Include information for every tank and dispenser at the facility.</p>	

\* In Section below, describe how and when these deficiencies were or will be corrected.

Comments:

### III

## er maintains a copy

Software Version Installed:

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# Permit To Operate (PTO)



Karine Aslakson



Gwen Boulden



Israel Zurfluh



Terri Quamme



Rebecca Shervey

STATE OF WISCONSIN DEPARTMENT OF COMMERCE		PERMIT TO OPERATE	
Bureau of Storage Tank Regulation Environmental and Regulatory Services Division PO Box 7837 Madison, WI 53707		PERMIT FOR: UST Tank Systems Capacity: 1000 gallons Contents: Diesel Regulation Use	
ISSUED TO (Owner/owner's agent)		TCT ID NO.: 805838	
CUST ID: 820938		SITE ID: 9452	
BRADLEY CENTER SPORTS & ENTERTAINMENT CORP 1001 N 4TH ST MILWAUKEE WI 53203		SITE ADDRESS: BRADLEY CENTER SPORTS 1001 4TH ST MILWAUKEE WI 53203	

Permit must be renewed on or before the expiration date and is not available for renewal if the permit is not renewed on or before the expiration date. The permit is not valid for failure to maintain compliance with applicable codes and standards.

ERS-7659-E (R 06/00)

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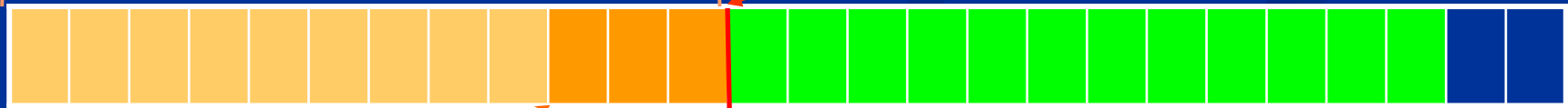
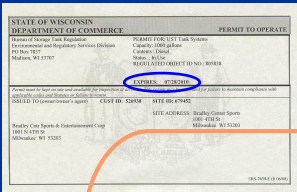
# Permit To Operate

- Insurance companies are now required to notify Commerce when a policy is cancelled or terminated by the company or by the policy holder.
- Processing PTO takes time, don't expect that permit staff are going to immediately work on yours so red-tags can be removed.
- If you have more than one facility send the renewal application in for all the facilities at the same time - that improves turn-around time.

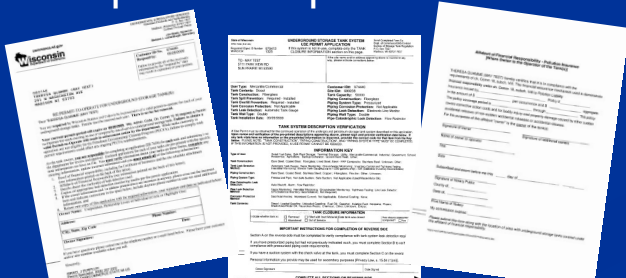
# Permit Renewal

- Comm 10.145(6) Renewal application
- Comm 10.115(3) Red-tag

Current 12 month permit period



Renewal notice sent 90 days  
prior to permit expiration date



PTO  
Expiration  
Date

Next 12 month PTO period

# Change of Ownership

## Comm 10.150

- ❖ Shall notify the department of the change of ownership within 15 business days of completing the real-estate transaction.
- ❖ This includes moving from one LLC to another under the same owner.
- ❖ Notification shall be on form ERS-7437, ERS-8731 or ERS-10861 E
  - (a) The name and address of the new owner and of a local contact person.
  - (b) The date the documents evidencing the property transfer are executed.
  - (c) The name of the previous owner.
  - (d) The address of all locations included in the real-estate transaction that have tanks which are subject to the registration requirements in s. Comm 10.140.
  - (e) A copy of the newly recorded deed showing the new owner. ✓
- ❖ A permit application, form ERS-7658, shall be completed and submitted to the department within 15 business days of its receipt; and shall include all of the following:
  - (a) Proof of financial responsibility in accordance with subch. VII.
  - (b) An affidavit of financial responsibility in accordance with s. Comm 10.745 (2)
  - (c) Any fees due to the department as assessed under chs. Comm 2 or 48.
- ❖ All records that are required to be retained under either s. Comm 10.400 (11) or Comm 10.500 (9) shall be transferred to the new owner or operator. ✓
- ❖ The authorized agent or the department shall inspect the tank system and dispensing system before the new owner puts the tank system into service. ✓

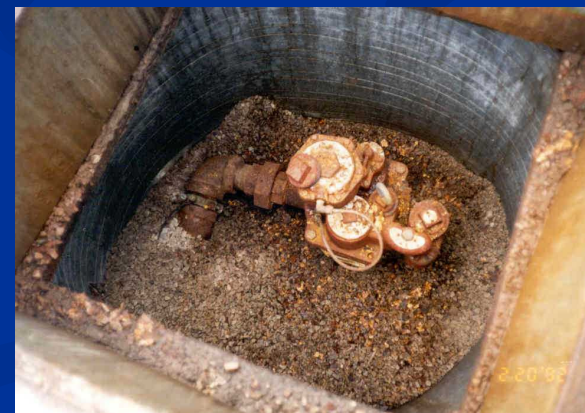
# Tank & Dispenser Sump Upgrade

Comm 10.500(5)(c-f)

(d) All existing pipe connections at the top of the tank and beneath all freestanding pumps and dispensers, that routinely contain product shall be placed within secondary containment sumps by December 31 of the fifth year following February 1, 2009...**2014**.

**Exemption: Comm 10.500(1)(b)3 – existing safe suction systems tank sumps**

(e) All pipe connections at a transition between aboveground and underground piping that are installed or replaced on or after February 1, 2009, shall be placed within a secondary containment sump at the time of installation or replacement.



Sump must pass initial tightness test

# Tank & Dispenser Sump Upgrade Cont'd

Comm 10.615(5)(a)6 - exemption

A secondary containment sump is not required under a dispenser if the storage tank system meets all of the following conditions:

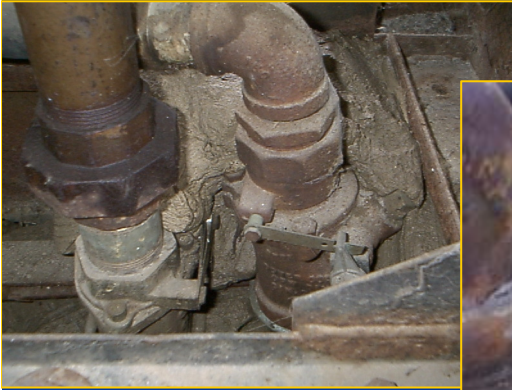
- All piping is aboveground and readily accessible for inspection.
- The pipe and dispenser are on or above a surface that is at least as impermeable as concrete.



Not Exempt



# Form - in - place Sump



## Questions to ask contractor:

- What is the guarantee or warranty period?
- Will dispensers be removed for the work to be performed?
- How will existing sump be cleaned?
- How will metal components be cleaned?
- How will uniformity of thickness be achieved?
- Will the sump be constructed to accommodate the sump sensor?
- Will you provide photos of sump reflecting condition before you add the coating?
- How will post installation tightness test be performed?
- What happens if sump does not pass tightness test?
- What documentation is furnished?

# Dispenser Sump Cont'd

Comm 10.500(5)(f)

*Sensor not retroactive for existing liquid tight sumps*



Piping off the bottom

Non discriminating  
sump sensor

- (f) 1. Secondary containment sumps provided under this subsection shall have **non-discriminating electronic sensors** that will detect liquids in the sump, unless approved otherwise by the department.
2. **Piping for secondary containment sumps provided under this subsection may not pass through the bottom of the sump.**



# What you need



No tank top containment  
– you need containment  
&  
a sump sensor



- Sump
- Sump pan
- Form in place



No under dispenser  
containment – you need  
containment  
&  
a sump sensor



If you had this type of  
containment by Feb 1, 2009,  
you don't need a sensor

Plan submittal not  
required for sensor  
unless it changes  
primary leak detection  
method.



# New vs. existing UST comparison

**Fed Reg & Heating Oil  $\geq$  4,000 gal**

## New:

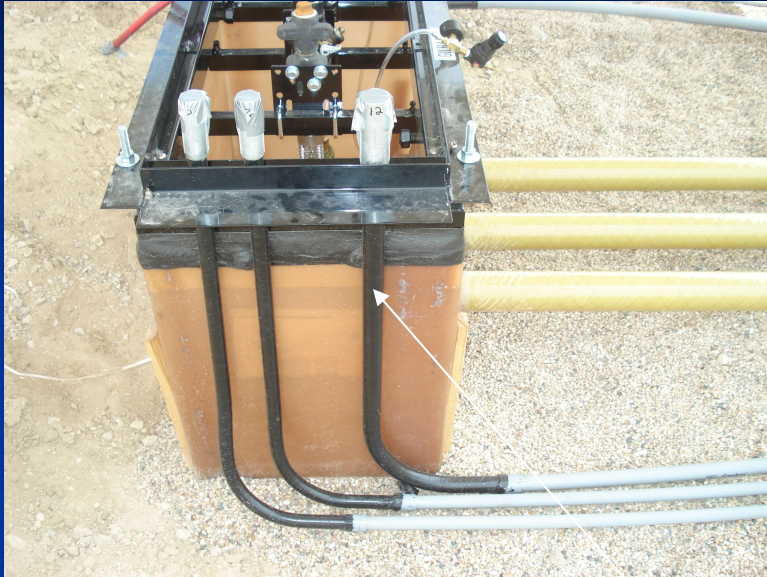
- Pressure & safe-suction pipe & tank systems must be double-wall.
- Pipe connection to tank and to dispenser must be within liquid tight containment (sumps).
- Pipe shall not penetrate sump floor.
- Sumps must have continuous electronic non discriminating monitoring.

## Existing:

- Pressure & safe-suction pipe systems must be double-wall if 50% or more is replaced
- Pipe connection to tank and to dispenser must be within liquid tight containment as required in the code.
- Replacement island of existing system will require sump sensors

# Dispenser Sump Upgrade Cont'd

## Comm 10.500(5)(f)3



Electrical must be outside the sump and over the sump top



3. All **electrical conduit and wiring at secondary containment sumps provided under this subsection for dispensers shall pass over the top of the sump wall** rather than through the wall or bottom of the sump.

Comm 10.500(6)(a)1.b requires Certified Installer to maintain oversight of electrical installation

# UST Overfill Prevention

## Comm 10.505

### History:

EPA 40 CFR 280 Requirement in Comm 10.51(5)(b)

- Overfill prevention equipment that does at least one of the following:
  - ✓ Restricts flow 30 minutes prior to overflow.
  - ✓ Alerts the operator with a high-level alarm at least one minute prior to overflow.
  - ✓ Automatically shuts off flow so that no fittings on top of the tank are exposed to product.

❖ 1 of 3 options

- 1987 NFPA 30 No reference to overfill
- 1990 NFPA 30 1<sup>st</sup> reference to overfill as a result of life safety incidents
- 2002 Comm 10 adopted 2000 NFPA 30

Ball float manufactures do not recognize the device as auto shut-off.



### NFPA 30-21.7.1.5

**An underground tank shall be equipped with overfill prevention equipment that will operate as follows:**

- (1) Automatically shut off the flow of liquid into the tank when the tank is no more than 95 percent full
- (2) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow of liquid into the tank or triggering the high-level alarm
- (3) Other methods approved by the authority having jurisdiction

**Alert + auto shut-off**  
**Other method by AHJ**

Existing Retroactive:  
February 1, 2011

# UST Overfill Prevention (Cont'd)

## Comm 10.505

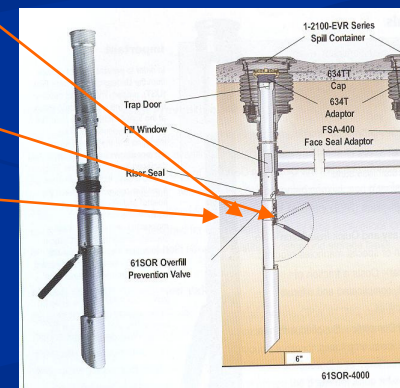
### ❖ Alert at 90%

- Alarm (visual & audible)
- Flow restriction (drop tube flapper or vent ball float)

### ❖ Shut-off at 95%

- Drop tube flapper valve

Manufacturers are telling us that the 90% alert mechanism must be installed so that the alert is audible via an alarm and visual via a light.





# Proposed Modification to Federal Rule

- Ban new ball floats
- Restrictions on existing ball floats
- Periodic functionality tests on spill buckets
- Annual or more periodic testing than manufacturer's recommendations of leak detection equipment (probes, sensors, etc.) and alarms
- Modify recordkeeping requirements

# Leak Detection Methodologies That Are Gone

- Groundwater monitoring prohibited
- Vapor monitoring prohibited.

# Leak Detection Changes

## Comm 10.510

- Inventory Control & Tightness Testing is modified
- ATG - Automatic Tank Gauge
- Line leak detector is modified
- Inventory control is modified
- Statistical Inventory Reconciliation (SIR) is modified

# Change for New Tanks-Inventory Control & Tightness Testing

**System can be no older than 10 Years**

- API 1621 has been adopted. The change is .5 percent of gain or loss flags a possible problem.
- This is 5 gallons of product +/- for every 1000 gallons
- Old method allowed +/- 130 gallons - not allowed now

PLUS

- A Precision Tank Test Every 5 Years For 10 Years
- After 10 years another monitoring method required



# Inventory Control LD Methodology

## Comm 10.515(2)

- Moved from EPA 1% throughput + 130 gallons to API 1621 0.5% throughput
- Why? . . . Is a leak of 129 gallons or more really acceptable!

Old example #1:

10,000 gallon tank with  
30,000 gallons of throughput  
1% throughput = 300 gallons  
 $300 \text{ gallons} + 130 = 430 \text{ gallon leak threshold}$

Old example #2:

10,000 gallon tank with 1,000 gallons  
Tank is idle so throughput is 0 gallons  
1% throughput = 0 gallons  
 $0 \text{ gallons} + 130 = 130 \text{ gallon leak threshold}$

New example #1:

10,000 gallon tank with  
30,000 gallons of throughput  
0.5% throughput = 150 gallons  
150 gallon leak threshold

New example #2:

10,000 gallon tank with 1,000 gallons  
Tank is idle so throughput is 0 gallons  
0.5% throughput = 0 gallons  
Any loss is leak threshold

# API 1621 Method

130 gallons not  
allowed

Printed: 3/27/2008 8:48 AM  
Bus. Day: 3/24/2008

Page: 3

## Monthly Inventory Reconciliation Sheet

Month/Year Selection: January 2008  
Grade Selection: All

Report Type: Gross

Day	Opening	Delivery	Metered Sales	Adjustments	Calculated Inventory	Closing Reading	Daily Variance	Cumulated Variance	Water Inches
<b>Grade: DIESEL</b>									
01	3,354	0	38	0	3,316	3,303	-13	-13	0 0/8
02	3,303	0	863	0	2,440	2,455	15	2	0 0/8
03	2,455	1,204	803	0	2,856	2,804	-52	-50	0 0/8
04	2,804	0	805	0	1,999	2,051	52	2	0 0/8
05	2,051	0	131	0	1,920	1,922	2	4	0 0/8
06	1,922	0	100	0	1,822	1,815	-7	-3	0 0/8
07	1,815	1,203	715	0	2,303	2,304	1	-2	0 0/8
08	2,304	0	659	0	1,645	1,615	-30	-32	0 0/8
09	1,615	1,200	656	0	2,159	2,067	-92	-124	0 0/8
10	2,067	0	873	0	1,194	1,311	117	-7	0 0/8
11	1,311	1,197	599	0	1,909	1,928	19	12	0 0/8
12	1,928	0	156	0	1,772	1,774	2	14	0 0/8
13	1,774	2,001	116	0	3,659	3,648	-11	3	0 0/8
14	3,648	0	948	0	2,700	2,701	1	4	0 0/8
15	2,701	0	761	0	1,940	1,846	-94	-90	0 0/8
16	1,846	0	770	0	1,076	1,171	95	5	0 0/8
17	1,171	1,301	773	0	1,699	1,692	-7	-2	0 0/8
18	1,692	1,301	758	0	2,235	2,232	-3	-5	0 0/8
19	2,232	0	278	0	1,954	1,957	3	-2	0 0/8
20	1,957	2,002	74	0	3,885	3,898	13	11	0 0/8
21	3,898	0	903	0	2,995	2,909	-86	-75	0 0/8
22	2,909	0	723	0	2,186	2,282	96	21	0 0/8
23	2,282	0	747	0	1,535	1,512	-23	-2	0 0/8
24	1,512	3,198	769	0	3,941	3,965	24	22	0 0/8
25	3,965	0	866	0	3,099	3,151	52	74	0 0/8
26	3,151	0	246	0	2,905	2,881	-24	50	0 0/8
27	2,881	0	126	0	2,755	2,757	2	52	0 0/8
28	2,757	1,200	801	0	3,156	3,119	-37	15	0 0/8
29	3,119	0	1,071	0	2,048	2,054	6	21	0 0/8
30	2,054	1,198	871	0	2,381	2,417	36	57	0 0/8
31	2,417	0	454	0	1,963	1,945	-18	39	0 0/8
<b>Total Sales:</b>			<b>18,453</b>			<b>Monthly Variance:</b>	<b>39</b>		

### Allowable Variances:

Total Sales X 0.50% = 92

Total Sales X 0.50% = 92 + 130 Gallons = 222 (Federal)

Total Sales X 0.50% = 92 (State/Local)

You must investigate and track your activities using the "Suspected Leak Activity Log" if:

- \* Your monthly variance exceeds the allowable variance (or your state/local variance if more stringent), or
- \* You have other reasons to suspect a leak based on a large daily variance or consistently negative losses (get regional guidance), or
- \* You experience other symptoms (e.g., sudden accumulation of water in the tank, unusual system occurrences, etc.)

# Leak Detection Automatic Tank Gauge

Comm 10.510

- Annual Calibration of ATG
- Failed or inconsistent test actions codified (10.510(3) & (4))

Ignoring a warning will require you to perform a 3<sup>rd</sup> party precision test.

### Comm 10.515(5)(d)

- Automatic tank gauges shall be provided with a printer that provides at least all of the following information:
- 1. The starting date and time and ending date and time of the test.
- 2. The volume of liquid in the tank during the test.
- 3. The measured leak rate in gallons per hour and whether this leak rate indicates a pass or a fail.
- 4. The specific identification of the tank and any associated piping that is being tested.

WAGNER SHELL  
4611 W. STEWART AVE  
WAUSAU WI.  
715-848-6059

MAR 27, 2008 8:32 AM

CSLD TEST RESULTS

MAR 27, 2008 8:32 AM

T 1: UNLEADED  
PROBE SERIAL NUM 440292

0.2 GAL/HR TEST  
PER: MAR 27, 2008 PASS

T 2: UNLEADED-2  
PROBE SERIAL NUM 440291

0.2 GAL/HR TEST  
PER: MAR 27, 2008 PASS

T 3: PREMIUM UNLEADED  
PROBE SERIAL NUM 440294

0.2 GAL/HR TEST  
PER: MAR 27, 2008 PASS

T 4: DIESEL  
PROBE SERIAL NUM 440293

0.2 GAL/HR TEST  
PER: MAR 27, 2008 PASS

\*\*\*\*\* END \*\*\*\*\*

Web site ATG reference:

[http://commerce.wi.gov/ERpdf/bst/Material\\_Approvals/ER-BST-MA-ATGQuickRef12-01-08.pdf](http://commerce.wi.gov/ERpdf/bst/Material_Approvals/ER-BST-MA-ATGQuickRef12-01-08.pdf)

## Leak Detection – Major change

**All Electronic Line leak detectors Must Be Tested Annually**

### Annual Line Leak Detector Functionality Test

Comm 10.515(8)(d)

- Mechanical Flow Restrictors Always Required Functionality Test
- Annual Test of Electronic .2 Line Leak Detector is required
- Annual Functionality Test of the 3 GPH Electronic Line Leak Detector is required





# Was - Inventory Control

## Now - Inventory Verification

### -WHY-

- To verify the integrity of product delivery
- To verify inventory
  - \* Month to month records can show trends of small losses over months that could be a leak
  - \* Calibration Issues - you're giving away gas
  - \* Theft
  - \* Octane Fraud Issues

# Inventory Verification (IV)

## Comm 10.503

- ❖ Comm 48 sites (public fueling) – all leak detection methodologies
- ❖ Daily inventory records (ATG or manual)
- ❖ Monthly reconciliation

**NFPA 30A-9.2.1 Inventory Control.** Accurate daily inventory records shall be maintained and reconciled for all liquid fuel storage tanks for indication of possible leakage from tanks or piping. The records shall be kept on the premises or shall be made available to the authority having jurisdiction for inspection within 24 hours of a written or verbal request. The records shall include, as a minimum and by product, daily reconciliation between sales, use, receipts, and inventory on hand. If there is more than one storage system serving an individual pump or dispensing device for any product, the reconciliation shall be maintained separately for each system.

# Inventory Verification Cont'd

## Proper how-to-do-it:

### Measure

Inventory:	Manual or ATG reading
Delivery:	Delivery receipt, Gross gallons
Sales:	Dispenser or console totalizer reading

Support investigative function that ATG cannot perform:

- ✓ Mis-deliveries
- ✓ Octane fraud
- ✓ Theft
- ✓ Trigger suspicion ATG is not functioning properly

## **Inventory Verification (IV) ensures interaction by the site owner.**

- Requires owner to check their ATG or manually stick the tanks daily.
- Alerts owner to problems prior to 30-day automatic tank leak detection results and annual line testing.
- Inventory verification is not passive leak detection (out-of-sight-out-of-mind) like an ATG or automatic line leak equipment.
- Records must be maintained for 10 years.

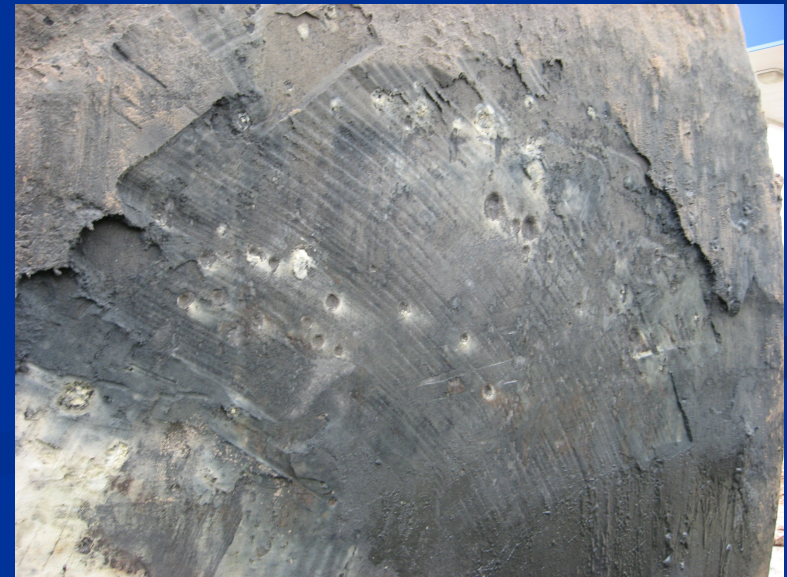
# Additional Benefits of IV:

- Determine if total monthly product throughput exceeds limits of ATGs performing statistical monthly tank tests.
- Spot mis-deliveries
- Easily scan reports to determine dates when tanks contained sufficient amount of product for valid ATG tests.
- % Ethanol fuel blending - octane-



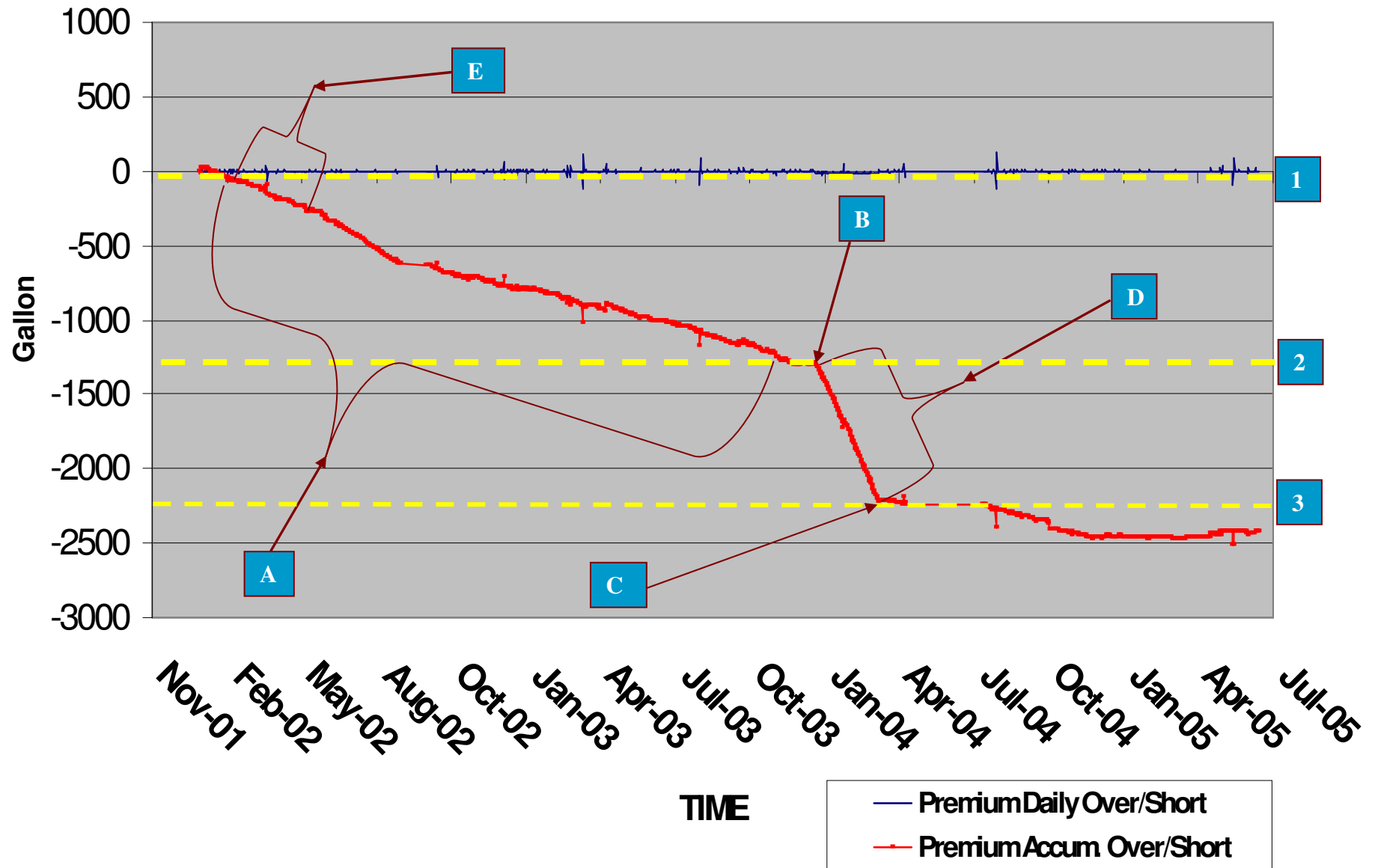
# Importance of IV in Investigation

- Monitoring wells picking up vapors
- Repeated tightness tests – Passed
- Poor / incomplete inventory control records
- Excavation – heavy clay soil
- Dangerously high vapor level when soil cap opened
- Free product when tank and pipe exposed



# OVER (+) / SHORT (-) VARIANCES

*Missing Months; Sept 2002, May - July 2003.*



# Statistical Inventory Reconciliation (SIR)

Comm 10.515(6)

- 4 days to submit to SIR vendor
- 10 days to return to operator
- 24 hours for you to review results
- Precision test prior to moving to SIR from another methodology

# Records the Inspector Needs

- ❖ Operators shall maintain required records at the site.
- ❖ Inventory Verification
- ❖ Tank Gauge
  - monthly tests
    - .2 or .1 tank tests
    - Interstitial reports
    - Line tests
    - Flow restrictor

# Records the Inspector Needs

- All 3<sup>rd</sup> Party Tests
  - Corrosion Protection - galvanic or impressed
  - Line Tests
  - Tank Tests
  - Flow restrictors
  - Internal inspections
  - Equipment Calibration - **NEW**
  - Alarm History -how did you respond
  - Impact valves
  - Continuity tests - **NEW**

**Wisconsin** UNDERGROUND TANK SYSTEM RELEASE & LEAK EQUIPMENT FUNCTIONALITY VERIFICATION

General Information: Customer DPT, Facility Name, Company Name, Date, Inspector, City, State, Zip Code, Telephone Number, Fax Number, E-mail Address, Website, and other contact details.

Inventory of Equipment: A table listing various equipment items (e.g., 1.0 Tank Integrity Tester, 2.0 Leak Detection System, 3.0 Flow Restrictor, etc.) and their status (e.g., Working, Not Working, etc.).

Test Results: A section for recording the results of the functionality verification tests, including a table for 'Test Results' and a 'Comments' section.



# Record Keeping - Leak Detection Requirements

A box on the wall is not leak detection



Leak detection is determining that your tank is not leaking at least every 30 days with the owner or operator maintaining a record of such verification.

WAGNER SHELL  
4611 W. STEWART AVE  
WAUSAU WI.  
715-848-6059

MAR 27. 2008 8:32 AM

CSLD TEST RESULTS  
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PER: MAR 27. 2008 PASS

T 4: DIESEL  
PROBE SERIAL NUM 440293

0.2 GAL/HR TEST  
PER: MAR 27. 2008 PASS

\*\*\*\*\* END \*\*\*\*\*

# Record Keeping - Leak Detection Requirements

HALDER BAR  
MOSINEE, WI.  
---- LEAK DETECT ----  
---- AUTO MODE ----  
START: 12:00 AM 6/25/06  
TANK 1  
HALDER BAR  
MOSINEE, WI.  
---- LEAK DETECT ----  
---- AUTO MODE ----  
END: 6:00 AM 6/25/06  
TANK 1  
0.20 GPH LD PASSED  
GAL/HR CHANGE = -0.00  
TANK 1  
REGULAR UNLEADED  
HOUR GALLONS  
1:00 AM 725.69  
2:00 AM 725.69  
3:00 AM 725.69  
4:00 AM 725.69  
5:00 AM 725.69  
6:00 AM 725.70  
\*\*\*\*\*

HALDER BAR  
MOSINEE, WI.  
---- LEAK DETECT ----  
---- AUTO MODE ----  
START: 12:00 AM 7/02/06  
TANK 1  
HALDER BAR  
MOSINEE, WI.  
---- LEAK DETECT ----  
---- AUTO MODE ----  
END: 6:00 AM 7/02/06  
TANK 1  
0.20 GPH LD PASSED  
GAL/HR CHANGE = -0.00  
TANK 1  
REGULAR UNLEADED  
HOUR GALLONS  
1:00 AM 700.26  
2:00 AM 700.26  
3:00 AM 700.26  
4:00 AM 700.28  
5:00 AM 700.28  
6:00 AM 700.28  
\*\*\*\*\*

---- LEAK DETECT ----  
---- AUTO MODE ----  
START: 12:00 AM 7/23/06  
TANK 1  
HALDER BAR  
MOSINEE, WI.  
---- LEAK DETECT ----  
---- AUTO MODE ----  
END: 6:00 AM 7/23/06  
TANK 1  
0.20 GPH LD PASSED  
GAL/HR CHANGE = -0.00  
TANK 1  
REGULAR UNLEADED  
HOUR GALLONS  
1:00 AM 483.64  
2:00 AM 483.64  
3:00 AM 483.64  
4:00 AM 483.65  
5:00 AM 483.66  
6:00 AM 483.66  
\*\*\*\*\*  
HALDER BAR

Each system needs 12 passing slips per year

Printing off a slip when an inspector visits is not monthly leak detection

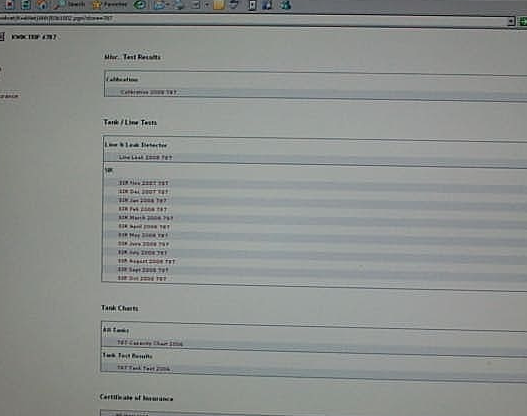
Each month without a slip is a failure, 2 consecutive months mean test the tank.



# Option - Computerized

PLANAR

C:\Program Files\Planar\Software\Inventory\



Compliance Reports - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.kwik.net/CM/0001001201.zpg?view=707

Kwik Net

Home Compliance HR Services Retail Center My Kwik Trip Log Out

Search [ ]

Home Kwik Trip 4767

Categories

- Misc. Test Results
- Task / Line Tests
- Task Charts
- Certificate of Insurance

Misc. Test Results

Calibration

Calibration 2008-7-7

Task / Line Tests

Line W Link Defect-hr

Line Link 2008-7-7

100%

100% Nov 2007-7-7

100% Jan 2008-7-7

100% Jan 2008-7-7

100% Feb 2008-7-7

100% March 2008-7-7

100% April 2008-7-7

100% May 2008-7-7

100% June 2008-7-7

100% July 2008-7-7

100% August 2008-7-7

100% Sept 2008-7-7

100% Oct 2008-7-7

Task Charts

All Tasks

100% Category Chart 2008

Task Test Results

100% Task Test 2008-7-7

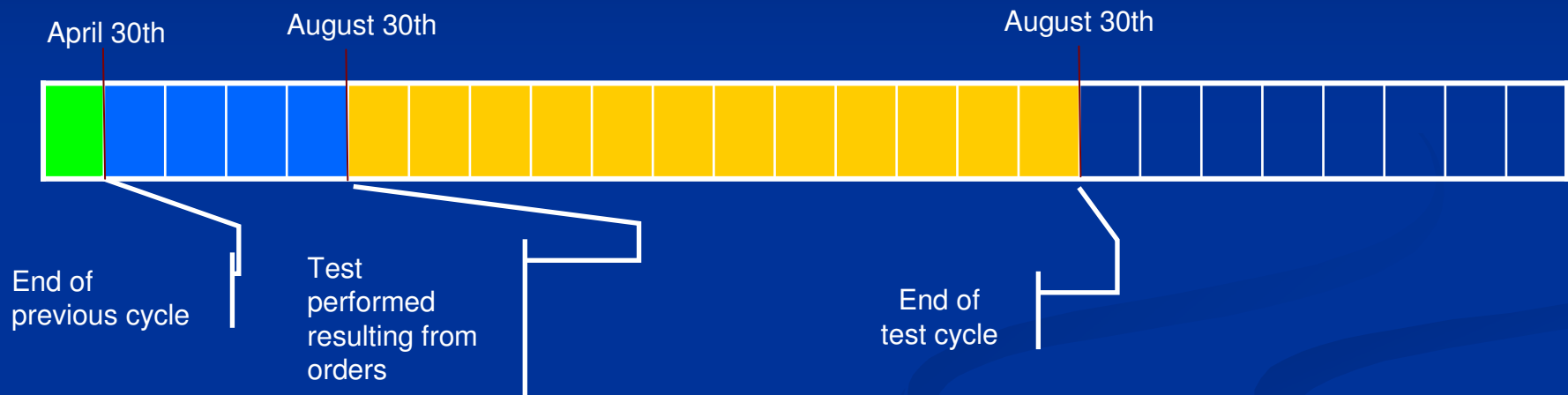
# Anniversary Date

## Purpose:

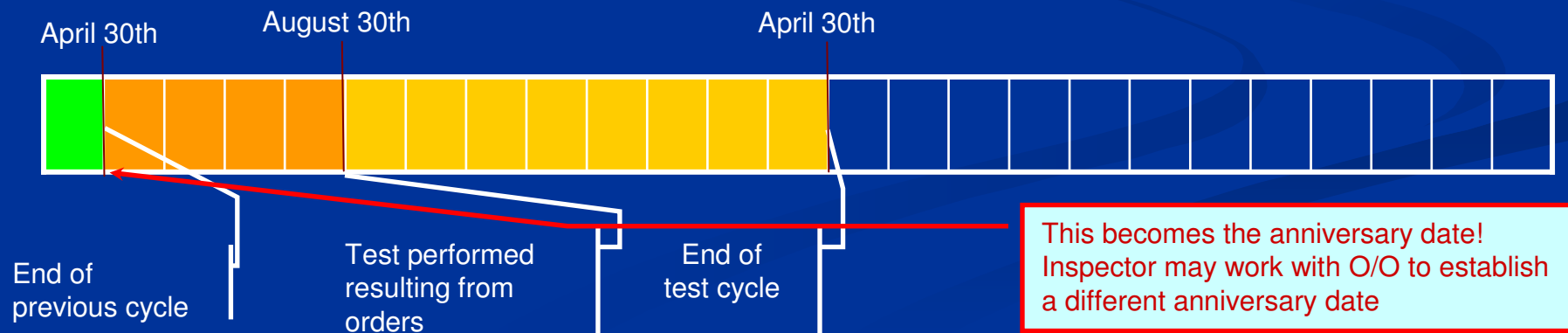
To bring everyone into intended periodic test cycle (i.e., annual)

To maintain fairness across the regulatory spectrum

## Practice of waiting for orders



## Implementation of Anniversary Date





# Respond to LD Alarms

- Alarm documentation is required!

Dates

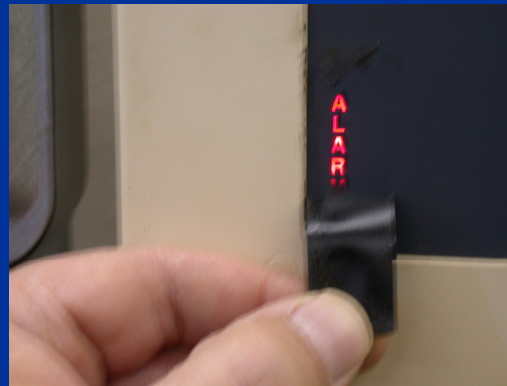
Response

Conclusion

Leak / no leak

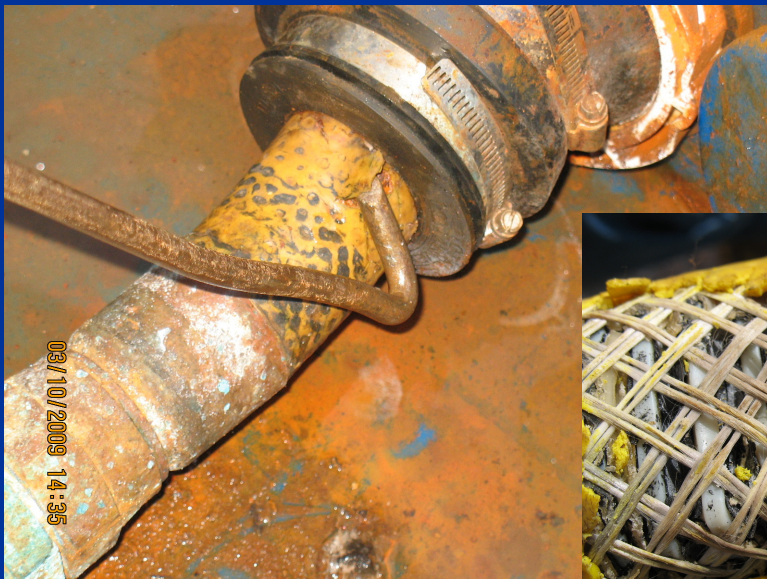


**Tape is NOT a solution!**



# Potential Flex Pipe Failure

- Total Containment Enviroflex
  - 1994 - approved for petroleum only; NOT alcohol
  - 1994 Total Containment began notifying customers regarding pipe manufactured prior to Sept 30, 1994
  - Degradation resulting from microbial fungus attack in water and soil





# Dispensing Areas Safety

## Comm 10.620(2)



- Vending machines prohibited
- Combustible not within 3 ft of dispenser
- Merchandise display no higher than 3 ft. above grade

# Tampering

## Comm 10.115(5)

Applies to:

- Tank operators
- Contractors
- Delivery people

Such things as:

- Over-riding overfill prevention
- Taking out drop tube
- Modifying (reprogramming) set-up to disable alarms

Drop tube removed to speed-up delivery

Stick used to over-ride flapper shut-off



# Nozzle spout size

## Comm 10.605(1)(d)

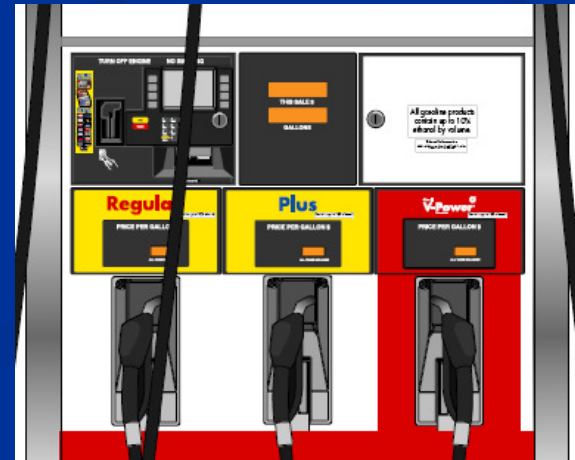
- 1972 EPA rule to prohibit leaded fuel
  - Did not relate to diesel fuel
- 2007 SAE J285
  - Gasoline 0.807 - 0.840 spout diameter
  - Diesel 0.929 - .0937 spout diameter (cars & light trucks)
  - Diesel -heavy duty trucks and off-road equipment 0.929 - .0937 or 1.122 - 1.250 spout diameter
  - Should also help eliminate fuel spit-back



# E85

## Comm 10.680(3)

- Comm 10.680(3)(c)2 - Separate hose/nozzle for ethanol blends >10%
- Comm 48.580 (1) (c) A dispensing device which does not use a separate fueling nozzle and hose for dispensing ethanol-blended motor fuels of more than 10 percent ethanol by volume shall bear a label clearly warning any purchaser that the first gallon may have more than 10 percent ethanol by volume.
- Labeling



# Pre-pay Pressure Sensitive vs. Automatic Nozzle

NFPA 30A-6.6 Requirements for Fuel Delivery Nozzles.

6.6.1 An automatic-closing-type hose nozzle valve, listed in accordance with UL 842, *Standard for Valves for Flammable Fluids*, with or without latch-open device, shall be provided on island-type dispensing devices used to dispense **Class I or Class II liquids**.

6.6.2\* At any installation **where the normal flow of product may be stopped other than by the hose nozzle valve**, the system shall include listed equipment with a **feature that causes or requires the closing of the hose nozzle valve before product flow can be resumed or before the hose nozzle valve can be replaced in its normal position in the dispenser**.

6.6.3 Overhead-type dispensing devices shall be provided with a listed, automatic-closing-type hose nozzle valve without a latch-open device.

*Exception: A listed, automatic-closing-type hose nozzle valve with latch-open device shall be permitted to be used if the hose nozzle valve will close automatically in the event the valve is released from a fill opening or upon impact.*

6.6.4 Dispensing nozzles used at marine motor fuel dispensing facilities shall be of the automatic-closing type without a latch-open device.



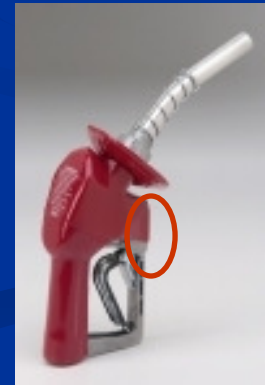
i.e., OPW 11B or 7HB



i.e., Harco 7TH or 11T



i.e., EMCO A2501

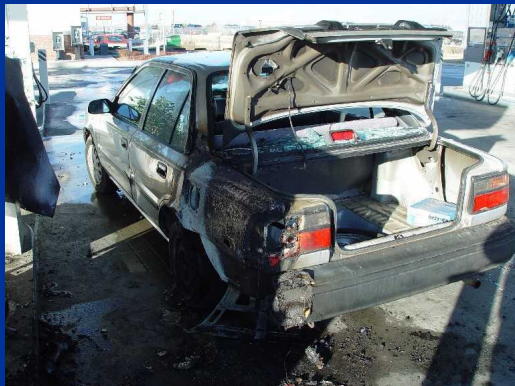


i.e., Husky XS (2-1)

# Continuity Testing

Comm 10.605(1)(b)

- Static fire prevention measure
- Annual test
- Class I motor fuel dispensing
- Auto, marine craft, aircraft
- PEI RP400

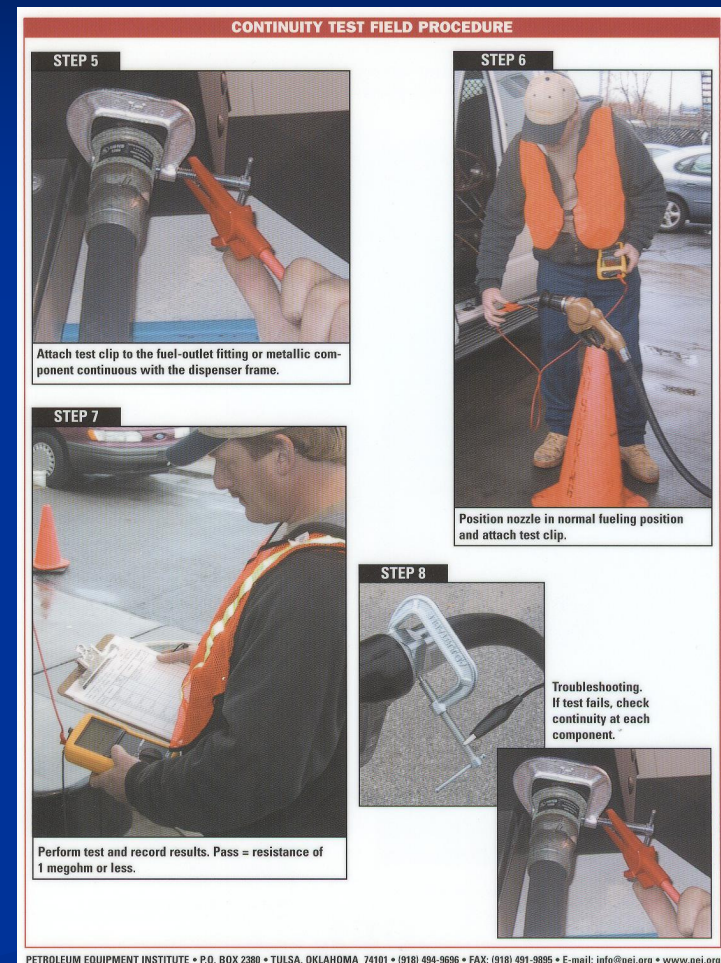
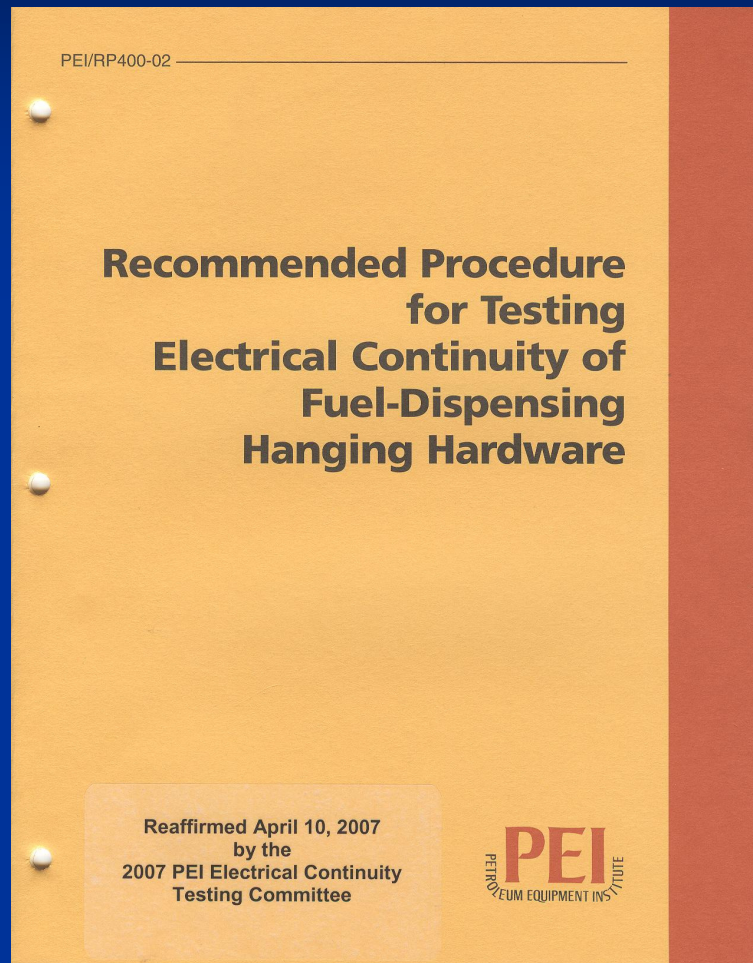


[http://pei.org/Index.aspx?p=stop\\_static](http://pei.org/Index.aspx?p=stop_static)



# Continuity Testing

## PEI / RP400



[http://www.pei.org/index.aspx?p=recommended\\_practice](http://www.pei.org/index.aspx?p=recommended_practice)



# Red-tag

## Comm 10.115(3)



Immediate shutdown. The following tank systems shall be subject to immediate shutdown:

1. Tank systems or their components that pose an immediate danger to life, safety or health. Conditions that cause immediate danger to life, safety, or health include visual evidence of leakage of a regulated substance, immediate human exposure to a regulated substance in the environment, defective equipment resulting in release of a regulated substance, overfill prevention that is not functioning properly or inadequate tank venting.
2. Tank systems that do not have leak detection, corrosion protection or spill and overfill protection installed as required under this chapter.
3. Tank wagons and movable tanks that are located, used or moved in a manner which presents an immediate environmental or safety hazard.
4. Tank systems undergoing installation that are not in compliance with this chapter, until the certified installer, professional engineer or owner obtains a petition for variance or code interpretation from the department showing that the action in question provides an equivalent degree of fire and environmental protection as the requirement in this chapter.
5. Tank systems that have experienced a lapse in financial responsibility required under subch. VII, until financial responsibility is obtained and the tank system is issued a permit to operate.
6. Tank systems used to store liquids that have been shown to be corrosive, reactive or otherwise incompatible with materials used in the construction of the tank system.
7. Tank systems with any breach that has the potential for liquid or vapor release, discovered as a result of an actual leak or a leak detection test, until the breach is repaired or otherwise corrected.
8. Tank systems that undergo a change of ownership in violation of s. Comm 10.150, until all the requirements of that section are met.

Comm 10.115(3)(b) 2 Tank systems that show evidence of attempts to mislead the authorized agent or the department regarding code compliance.



# Corrosion Protection

## Comm 10.520

- Components in contact with ground or with water

### *Galvanic:*

- *Test cycle for galvanic moved to 3 yrs up to 10th anniversary of tank, then annually*

### *Impressed Current:*

- *Ammeter and hour meter on all new systems*
- *Installed on existing systems when any component of the system is replaced (10.520(2))*

# Failed Corrosion Protection (CP)

(Comm 10.520(3) 7 (3))

- Failed / inoperative system  
corrective/recommissioning actions  
codified
- Repair - Internal lining is not an  
option
- Close tank

# UST Internal Lining Inspection

## Comm 10.530

Internal lining IS NOT a corrosion protection method!!

- 40 CFR 280.21 Option that allowed internal lining for existing bare steel tanks up to Dec 22, 1998
- Required internal lining inspection
  - Exempted - lined and with CP (installed at the same time)
- Comm 10
  - 40 CFR 280.21 USTs lined and with CP are exempt if installed w/i 6 mo. of each other
- API 1631 adopted standards for internal lining and inspection
- Internal lining inspection cycle 5/5
- Internal lining for added level of protection
  - Comm 10 review and reporting required
  - Periodic internal inspection required
  - Site assessment required if holes or rust plugs are observed
  - Precision and ullage tightness test required prior to placing tank back into service

# Environmental Assessment

## AST

### \* Comm 10.465 Closure

- Under tank
- Underground pipe
- Loading rack
- Transfer area
- Exceptions:
  - Secondary containment
  - AST < 5,000
  - Double-wall pipe

## UST

### \* Comm 10.500(7)(d)

- Repair to pipe with an associated release

### \* Comm 10.575(2)(b)

- Release

### \* Comm 10.560(3)

- Closure
- Exceptions 10.580(2):
  - Heating oil < 4,000
  - Farm or Res 1,100
  - Double-wall pipe
  - Secondary containment

# TSSA Assessment for Repair

Comm 10.500(7)(d)

- *Tank-system site assessment.* When repairs are made to **piping or fittings that have released product to the environment**, an assessment of the piping run, to identify points of release, shall be performed in accordance with ss. Comm 10.575 to 10.585.
- For an assessment associated with a repair, **sampling is typically needed only in the vicinity of the repair**, unless there is evidence that suggests the impact of a release extends beyond the immediate vicinity of the repair.



## Part A – Contractor / Inspector

**Part B – To be completed by environmental professionals**

**1. TANK-SYSTEM SITE ASSESSMENT (TSS-M)**

Site Name: \_\_\_\_\_ Address: \_\_\_\_\_

**TO DETERMINE IF A TSS-M IS REQUIRED, SEE 4.0 AND 4.01**

This TSS-M is required for those facilities that are in **ASSESSMENT AND REPORTING OF DISPERSED AND/OR OIL/VOI RELEASED FROM** and **UNDERGROUND AND ABOVEGROUND STORAGE TANKS** or **OTHER** A.

**2. SITE INFORMATION**

a. Has there been a previously documented release at this site? ☐ **Y** ☐ **N** If **Y**, provide the Containment # \_\_\_\_\_ of OHP Entry # \_\_\_\_\_

b. Number of the tanks at this site prior to completion of current services: \_\_\_\_\_ DOT: \_\_\_\_\_ AOT: \_\_\_\_\_

*(NOTE: 3. Do not include previously identified releases or system components)*

c. Circumstances/Trench Dimensions, etc. that provide the basis for problem: \_\_\_\_\_

**3. ESCAVATION TRENCH DATA**

ESCAVATION TRENCH #	LOCATION	DEPTH	WIDTH	DEPTH
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

**4. Visual Excavation/Trench Inspection (Visual) results provided for "yes" responses, except item 4f**

a. One of the following control items exist in or on the excavation? ☐ **Y** ☐ **N**

b. Observed odor: ☐ **Y** ☐ **N** b. Personnel odor: ☐ **Y** ☐ **N** c. Vapor in Excavation/Trench: ☐ **Y** ☐ **N**

c. Gasoline or petroleum products in or on the excavation? ☐ **Y** ☐ **N** d. Chemical or free product in water: ☐ **Y** ☐ **N**

d. Geological or hydrogeological ☐ **Y** ☐ **N**

e. Rock or ground water ☐ **Y** ☐ **N** f. Include free oil/gasoline ☐ **Y** ☐ **N**

g. One or more of the following individually or in combination as appropriate: ☐ **Y** ☐ **N** ☐ **Y** ☐ **N** ☐ **Y** ☐ **N** ☐ **Y** ☐ **N**

h. Visual depth within 1000 ft of the bottom: ☐ **Y** ☐ **N** If yes, specify \_\_\_\_\_

i. Excavation depth within 1000 ft of the bottom: ☐ **Y** ☐ **N** If yes, specify \_\_\_\_\_

**5. Sampling**

a. Follow the procedure detailed in **ASSESSMENT AND REPORTING OF DISPERSED AND/OR OIL/VOI RELEASED FROM** and **UNDERGROUND AND ABOVEGROUND STORAGE TANKS** or **OTHER** B.

b. Complete a Table 1 and be determinable (Allow contractors to log and laboratory analytical reports to include a description of the tank and its location).

**6. NOTE RELATED OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW**

[illegible]

# Periodic AST Integrity Assessment

## Comm 10.440(2) & (3)



Field erected tanks - API 653



### Shop-built tanks ( $\geq 1,100$ gal.) - STI SP001

- ❖ Exempt: heating oil tanks and tanks on farms or construction projects
- ❖ Commerce approved alternative inspection procedure

Driven by SPCC requirements



Shop-built repair / inspection STI SP031-03

# Periodic AST Integrity Assessment Cont'd



**Category 1 tank system:** 5,001- 50,000 gallon single-wall tank in a dike. Inspection requirements: Monthly and annual owner inspections; formal external inspection every 20 years.



**Category 1 tank system:**  
1,100-5,000 gallon single-wall tank in a dike or double-wall. Monthly inspection requirement.

**Category 2 tank system:** 5,001- 30,000 gallon single-wall Containment no impervious. Monthly plus 5 yr external and 10 yr leak test..

Exempt – less than 1,100 gallon

# AST Underground Piping

## Comm 10.400(2)(c) & (4)

- Corrosion protection
  - New Installation
  - Existing site by Jan 31, 2011
- Leak detection
  - New Installation
  - Existing site by Jan 31, 2011



# AST Hazard Label

## Comm 10.400(7)(b)1



### Posting:

- On the tank (Preferred)
- Adjacent to the tank in a manner acceptable to the local fire department

### Tanks that change product classification options:

- Posting with most hazardous classification
- Change NFPA 704 signage as classification changes



### Resource

- JJ Keller [www.jjkeller.com](http://www.jjkeller.com)  
(Adhesive signs, plastic sign, etc.)



# Credential Requirements

Need to be CERTIFIED in Wisconsin - or - test may not be accepted

- Tightness Tester
- Corrosion Protection Tester
- Site Assessor
- AST & UST Installer
- Tank Remover

- Procedures
- Forms

The screenshot shows a web browser window titled "Credential Search - Microsoft Internet Explorer". The address bar displays the URL: [http://apps.commerce.state.wi.us/SB\\_Credential/SB\\_CredentialApp/SearchByMultipleCriteria?cre](http://apps.commerce.state.wi.us/SB_Credential/SB_CredentialApp/SearchByMultipleCriteria?cre). The page content includes a message: "Search results are posted at the bottom of the page." Below this, there are three search sections:

- Search for Individual or Company by Credential ID here:**  
A text input field for "Specific Credential ID" and a "Search" button.
- Search for Tank Contractor Company by Tank Specialty here:**  
A dropdown menu for "Specialty Type" and a "Search" button.
- Search for Individual or Company by Category here:**  
A form with the following fields:
  - "Credential Type (required)" dropdown menu, currently set to "Cathodic Protection Tester".
  - "Credential Status (required)" dropdown menu, currently set to "Any".
  - "Zip (or first three digits)" text input field.
  - "Last or Business Name" text input field.
  - "Search" and "Clear" buttons at the bottom.

# Who can do what?

## Comm 5

### Conflict of interest

- ❖ Site Assessor Comm 5.83
- ❖ Tightness Testers Comm 5.88
- ❖ Cathodic protection specialties Comm 5.89

... shall be performed by a person who has no personal or monetary interest in the facility and whose employer has no personal or monetary interest in the facility

### No Conflict

- ❖ AST Installer
- ❖ UST Installer
- ❖ UST liner
- ❖ Remover / Cleaner

# Combustible Construction Materials

## Service Use

### Service Temperature

- Polyvinyl Chloride (PVC) 120 - 270°F  
Harvel Co.- “THE MAXIMUM SERVICE TEMPERATURE FOR PVC IS 140°F.”
- Polyethylene 140°F



### KEFCO Co.:

- Linear polyethylene (HDLPE) storage tanks have a maximum storage temperature of 120 degrees F.
- Cross-linked polyethylene (XLPE) storage tanks have a maximum storage temperature of 130 degrees F.
- We do not recommend storing petroleum products in our tanks because they will permeate (soften) the tank walls. You will find that aromatic hydrocarbons and halogenated hydrocarbons will not be recommended for polyethylene.

# Effective Upgrade Dates

- Secondary containment for transfer operations - Dec 31, 2011
  - Comm 10.340(5)
- Secondary containment for Hazardous Substance ASTs - Dec 31, 2014
  - Comm 10.350(3)(j)2
- Secondary containment for Hazardous Substance operations - Dec 31, 2014
  - Comm 10.350(5)(b)1.b.
- Emergency shut-off for transfers - Dec 31, 2011
  - Comm 10.370
- Corrosion protection on underground piping from an AST - Feb 1, 2011
  - Comm 10.400(2)(c)
- Pipe connection at dispenser shall be in secondary containment - Dec 31, 2014
  - Comm 10.400(3)(d); Comm 10.500(5)(d)
- Leak detection for underground piping from an AST - Feb 1, 2011
  - Comm 10.400(4)(a)
- Containment for fill not located in dike - Feb 1, 2010
  - Comm 10.410(6)
- Overfill prevention on ASTs with fill pont not in dike - Aug 1, 2011
  - Comm 10.410(9)
- Periodic inspections of ASTs - Feb 1, 2010
  - Comm 10.440(1)
- Pipe connections at top of tank shall be in secondary containment - Dec 31, 2014
  - Comm 10.500(5)(d)
- Auto shut-off overfill protection - Feb 1, 2011
  - Comm 10.505(2)(b)

# Comm 10 Flammable, Combustible and Hazardous Liquid Code

<http://www.legis.state.wi.us/rsb/codes/comm/comm10.pdf>

## Compendium

Including associated codes  
Comm 2, Comm 5, Comm 48

January 14, 2008

This document will be periodically updated and available on the Internet

Internet URL:

[http://commerce.wi.gov/ERpdf/bst/CommCodes10\\_5\\_2\\_48/ER-BST-Comm10CodeCompendium.pdf](http://commerce.wi.gov/ERpdf/bst/CommCodes10_5_2_48/ER-BST-Comm10CodeCompendium.pdf)

Title "Comm 10 Code Compendium"



ISCR Comm 10 Rev Appndt Comm 10 Compendium 01-14-08.doc Page 1 of 109

- Internet code reference in PDF format.
- Supports the code.
- Intended to provide uniformity in code application to the regulated public as well as regulatory inspectors.
- Periodic updates and revisions.

NFPA 30 does not have straight-forward language regarding venting and the type of vent required for used oil or other Class IIIB liquids. The department interprets the NFPA excerpts below to require closed vents for tanks inside buildings. The department does not interpret this to mandate pressure vacuum vents for Class IIIB tanks.

NFPA 30-4.2.5.1.6 Tanks and pressure vessels that store Class IA liquids shall be equipped with venting devices that are normally closed except when venting under pressure or vacuum.

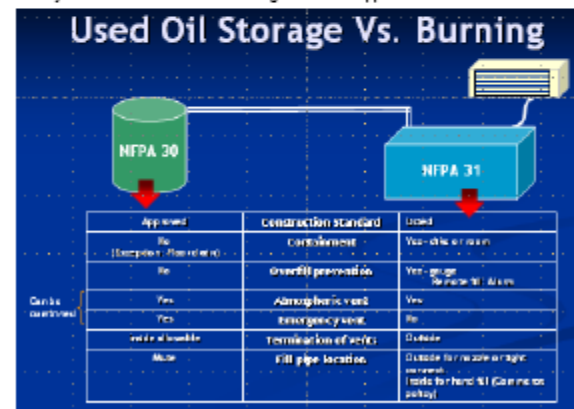
NFPA 30-4.2.5.1.8 Tanks of 126,000 gallon capacity or less that store crude petroleum in crude-producing areas and outside aboveground atmospheric tanks of less than 1,000 gallon capacity that contain other than Class IA liquids shall be permitted to have open vents.

The department interprets NFPA 30-4.3.4.1 to exclude Class IIIB tanks from the requirement that the venting on tanks located inside a building terminate outside. Fusible emergency venting with an opening temperature of less than 300 F would be allowable as long as the tank was less than 680 gallons, otherwise a pressure vent would have to be utilized. A photo of a typical fusible vent is provided to the right.



Secondary containment for tanks located inside buildings is required if a release could reach a floor drain, the exterior of the building, or an area, such as a room with a gas fired appliance, flame or spark generating service equipment or hot work that could pose an ignition hazard. Tanks located inside a building that require secondary containment must have containment at least 100% of tank capacity.

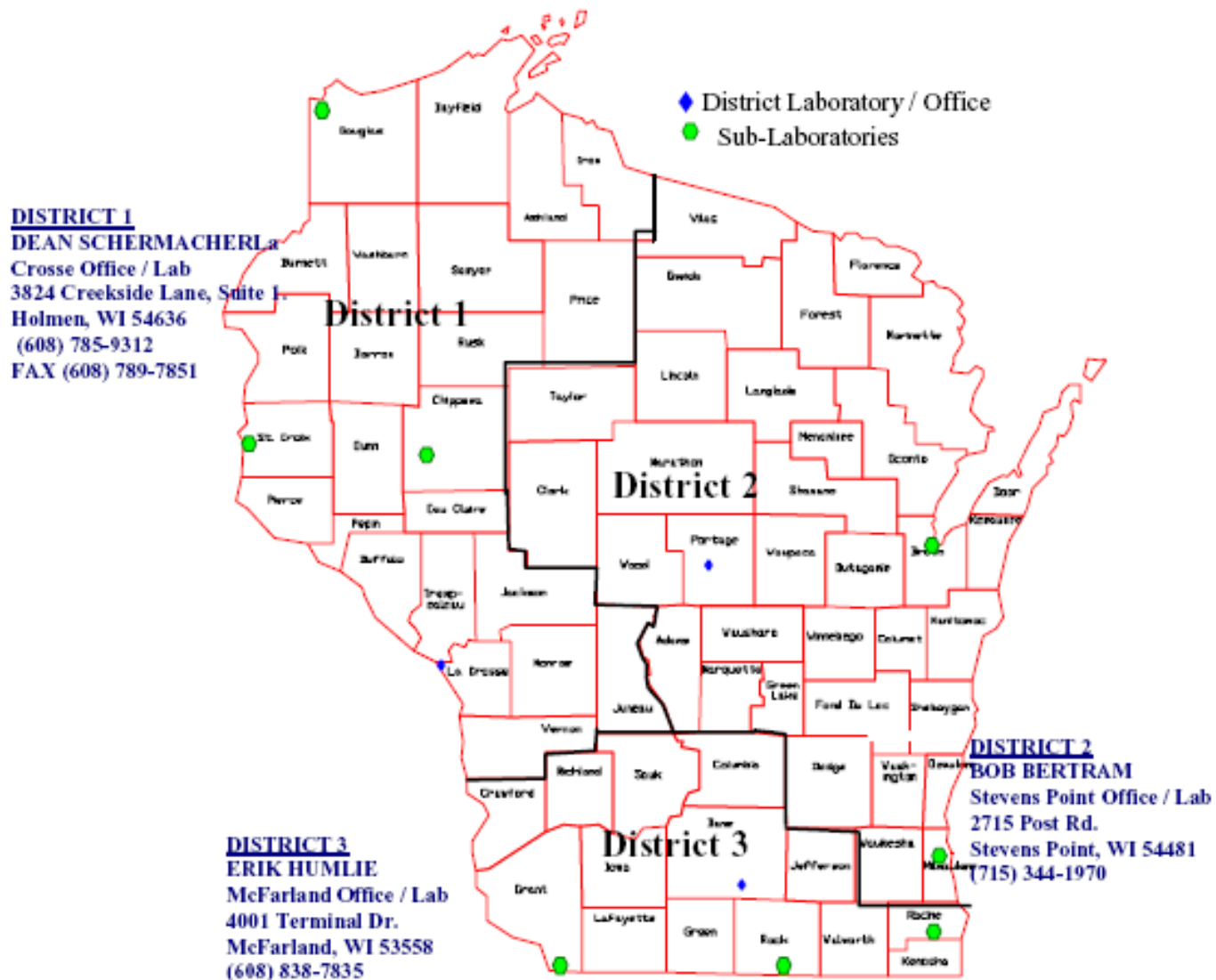
The following is a graphic summary of the different requirements for a used oil tank connected directly to a burner and a used oil storage tank that supplies the tank connected to the burner.





## RETAIL PETROLEUM SERVICES DISTRICTS

Wisconsin Environmental and Regulatory Services Division  
Bureau of Petroleum Products and Tanks



# Questions



STATE OF WISCONSIN  
DEPARTMENT OF COMMERCE  
<http://www.commerce.state.wi.us>

**SHELDON H. SCHALL**

SECTION CHIEF  
STORAGE TANK REGULATION SECTION  
PETROLEUM PRODUCTS AND TANKS BUREAU

201 W. WASHINGTON AVE., 3RD FLOOR  
MADISON, WI 53703  
P.O. BOX 7837  
MADISON, WI 53707-7837

TELEPHONE: (608) 266-0956  
FAX: (608) 261-7725  
TTY: (608) 264-8777  
E-MAIL: [sschall@commerce.state.wi.us](mailto:sschall@commerce.state.wi.us)

